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TOWNSHIP OF YORK FARMERS' CLUB.

IMPROVED BREEDS OF CATTLE.

At a meeting of this club on the evening of Wednesday, the 6th November, E. W. Thomson, Esq., opened the discussion by reading the following paper:—

GENTLEMEN,—In addressing you this evening on improved breeds of cattle, I shall briefly bring before your notice the several breeds with which we are acquainted, describing their excellencies, showing wherein they differ from each other, and the advantages that result to the farmer from making a judicious selection of stock to breed from. Before attempting to describe the varieties of the ox kind that have of late attracted the attention of breeders, and with respect to which there exists a variety of opinions, permit me to offer a few general remarks, drawn from different sources, as well as from my own observation. In the *American Farmers' Encyclopedia*, we find under the article Cattle, the following:—

“That the ox has been domesticated and in the service of man from a very remote period, is quite certain. We learn from Genesis iv. and 20th, that cattle were kept by the early descendants of Adam, preserved by Noah from the flood waters. The original breed of our present oxen must have been in Mount Arrarat; and from thence dispersing over the face of the globe, altering by climate, by food and by cultivation, originated the various breeds of modern ages. That the value of the ox tribe has been in all ages and climates highly appreciated, we have abundant evidence. The natives of Egypt, India, and of Hindoostan, seem alike to have placed the cow amongst their deities, and, judging from her usefulness in all climes, no animal could, perhaps, have been selected whose value to mankind is greater.” In nearly all parts of the earth, cattle are employed for their labor, for their milk, and for food. In Southern Africa they are

as much the associate of the Caffres as the horse is of the Arab. They share his toils and assist him in tending his herds; they are even trained to battle, in which they become fierce and courageous. In Central Africa the proudest ebony beauties are to be seen on their backs. They have drawn the plough in all ages; in Spain, they still trample out the corn, in India raise the water from the deepest wells to irrigate the thirsty soil of Bengal. When Cæsar invaded England they constituted the chief wealth of its inhabitants, and they yet form no inconsiderable item in the estimate of that country's abundant riches. According to Mr. Youatt's estimate (who is considered good authority on all matters connected with live stock), it would seem that 1,600,000 head of cattle are consigned to the butcher every year in the United Kingdom, and the value of the entire national stock of all kinds of cattle, sheep and pigs, amounts to nearly £120,000,000 sterling.” An excellent paper on the origin and natural history of the domestic ox, and the allied species, by Professor Wilson (*Quarterly Journal of Agriculture*, vol. 11, pp. 177) may be consulted with advantage by those who wish for more information on this head. The value of the ox to the pioneers of the forest is undeniable, and needs no illustration. Those who have had experience in the clearing of wild lands, can bear testimony to it, and in my opinion, he might be employed on old cleared farms to a much greater extent than he is, with decided advantage. And as to the cow, it is hardly possible to do justice to her value; rich and poor are alike dependent upon her for the comforts of life. Her produce constitutes the main support of many a poor man's family; and if she is properly cared for, the sum invested in her purchase is one of the very best investments that can be made. In Belgium, the cow is an object of the greatest care and attention, and amply repays the owner for that care, for in addition to the milk she produces, she is trained to draw the plough, harrow and cart, and is, on many of the small farms of that country, the only beast of draught employed. This fact is only mentioned to illustrate

the value of the cow in various countries, not to show that it would be desirable she should be so employed in this country, as our farms are happily not of such contracted dimensions that the team work upon them could be performed by a couple of cows, giving milk.

The intention of a paper of this kind is to show the advantages that would result to the country by a determination on the part of those employed in the rearing of stock to obtain the most profitable breed; and for this purpose it may not be unprofitable to revert to a few statistics, which are in part supposititious:—say the county of York, containing something under 100,000 inhabitants, has 25,000 cows, the present value of which is £100,000, or £4 each; there would be no difficulty in raising the value of the same number in four years' time to £150,000, by the employment of none but the best male animals. Then, again, suppose 5,000 calves are killed for veal, and that they are worth on an average £1; I am quite sure that by the same means their value could be increased 50 per cent., and the difference would be still greater with respect to the heifers, cows, steers and oxen, that go to the shambles for beef, were the farmers of the county to select their breeding animals from those most famous for their early maturity, and propensity to thrive and fatten. I know from experience, that grade steers from common cows, by a Durham bull, will weigh at three years old 1,000; whereas the ordinary weight of cattle of the same age, is from 6 to 700 lbs at the most. Even half breed cattle will produce to the farmer as great a yield at three years old, as ordinary cattle will at five—saving him two years' keeping—a saving of some considerable importance. Now, supposing this statement to be correct, and that there is no falling off in the dairy produce, who will deny the advantage of breeding from the best stock? But when, in addition to the foregoing, it can be clearly demonstrated that very large additions can be made to the produce of the dairy by a judicious selection of breeding animals, it becomes a matter of paramount importance to enquire into the merits of the different breeds, the special excellencies of which have been contended for by their advocates, and upon which a difference of opinion exists amongst those who have devoted much time and attention to the subject. I may here enumerate some of the characteristics of the various breeds, as derived from different authorities, and my own observation, premising that there are a few general remarks applicable to all from the Farmers' Encyclopedia:—"The first point to be ascertained in examining an ox, is the purity of its breed, whatever kind that breed may be, for that will give the degree of the disposition to fatten of the individuals of that breed. The purity of the breed may be ascertained from several marks: the colors of the skin of a pure breed of cattle, whatever these colors are, are always definite. The color of the bald skin on the nose and round the eyes, in a pure breed, is always definite, and without spots. This last is an essential point, where horns exist, they should be smooth, small, tapering, and sharp-pointed, long or short, ac-

ording to the breed, and of a white color throughout in some breeds, and tipped with black in others. The shape of the horn is a less essential point than the color." Applying these remarks to the different breeds, as illustrative of the point which we have been considering, we have the definite colors of white and red, in the Short Horns. The color is either entirely white or entirely red, or the one or the other predominates in their mixture. The skin on the nose and round the eye is uniformly of a rich cream color. The Ayrshire breed, in its purity, is also distinguished by the red and white color, but always mixed, and the mixture consists of spots of greater or smaller size, but blended together. The color of the skin on the nose and round the eyes is not definite, but generally black or cream colored. In other points, these two celebrated breeds differ from one another more than in the characteristics which I have described. In the West Highland, Angus, and Galloway breeds, the color of the skin of the nose and round the eyes is indicative of the pure blood of the black colored cattle, but a cream colored nose may frequently be observed among those of other colors. The characteristics above given will certainly apply to the purity of the blood of the Short Horn and Ayrshire breeds, if not to the West Highlanders and Galloways. The Devons, a breed decidedly popular with many, are distinguished by a beautiful symmetry of form, sprightly appearance, and uniform mahogany red. The Herefords are known by their white faces and breasts, as well as long, slim horns. Each of these breeds has its advocates, and, no doubt, possesses valuable properties; their distinctive characters I shall endeavor to give in their turn. Another breed of cattle, that has gained notoriety in England, is the Jersey. In their color and general appearance, they very much resemble the Devons, but are larger and something coarser. The oxen are more highly esteemed for work than any other in England, but the cows are not general favorites, on account of their not giving so large a quantity of milk as some other breeds. The Holderness and Suffolk cows are superior. The Sussex cow is of an uneasy temper. They are said to be kindly feeders, notwithstanding, and to take on fat very fast when dry.

There are some favorite breeds in Ireland, and the Kerry cow, though a small animal, is very highly esteemed for her milking qualities.

A person who travelled much over England, and paid particular attention to the cattle of the country, thus describes the Alderney or Guernsey cow:—"Of all the cows which I ever saw, the handsomest—that which gave my eye the most pleasure—that which gave the best promise of being what a cow should be, was an Alderney, or rather improved Guernsey cow, brought from one of the Channel Islands. She was two years old, compact, and well shaped, showing what could be effected by attention to feeding. This breed are in general, skinny, thin, bare-boned, and presenting little more than skeletons of animals. They are valued for their milking qualities, and that not so much for the quantity of milk they give, as for its extraordinary richness and

creamy quality, in which certainly they surpass all other breeds." It is stated that no animals will thrive faster when not in milk, and their size is not always inferior. The same writer mentions having seen some breeds of fine looking and good-sized cows, of this breed. Few gentlemen or noblemen in the country are without one or more of these cows, for the supply of their tables. Several other breeds might be mentioned, but I will now proceed to give a description of some of the most highly esteemed as Dairy or Milking Stock. The milking or dairy properties of the different breeds have been a matter of much discussion; and it would be difficult to find a unanimous, perhaps even a general acquiescence, in any opinion. Jackson, in his treatise on Dairy Husbandry, says:—"Of the various breeds and cross breeds now in use, there are a few which enjoy the best reputation; we may name for example the Old Yorkshire Stock, a cross between the Teeswater and Holderness breed, the Long Horned, or Lancashire breed, the Short Horned, or Dutch breed, the Middle Horned of Devonshire, Sussex, and Hereford, the Ayrshire breed, the Alderney breed, &c. Some of these merit particular attention. We should first point out the Devonshire Cow. This is a very handsome animal, well set upon its legs, straight along the back, small muzzle, and generally of a red color. Both as oxen and cows, this kind of animal feed well at an early age; the cow affords a fine quality of milk, but only when fed on good pasture. The Hereford breed of cows is reckoned the best in England, as respects the production of milk. It is broad across the hind quarters, narrow at the sirloin, neck and head well proportioned; the horns, of a medium size, turn up at the points, the belly is generally of a deep red, head and breast white. This cow is considered as very valuable for fattening, and it has been found fit for the market at an earlier period than any other kind."

The Galloway breed of cattle is well known for various valuable qualities, and easily distinguished by the want of horns. It is broad across the back, with a very slight curve between the head and quarters, broad at the loins, the whole body having a fine round appearance. The head is of a moderate size, with large rough ears, chest deep, legs short, and it is lean in the neck. The prevailing color is black; those of this color being thought the most hardy, although this varies. This breed is highly esteemed, as there is no other breed which arrives at maturity so soon, and their flesh is of the finest quality. The milk is very fine, but is not obtained in very large quantities. Large numbers of this breed are sent annually to Smithfield market, and it is remarkable that they are generally in as good condition after the journey as before. They are now, however, taken up to Smithfield by rail. In the year 1851, I myself saw 3,000 of them at once in that market, as plump and fat almost as it was possible for them to be. The Suffolk Dun, also a hornless breed, is supposed to be a variety of the Galloway, from the general resemblance. The Ayrshire breed is one of the most valuable in Scotland, if not throughout the whole country.

It is of the smaller sized race, and according to Mr. Aiton, has been obtained from the indigenous cattle of the county of Ayr, by judicious selections to breed from, and skilful treatment. Professor Low is of opinion, that males of the Short Horned breed must have been introduced into the country, from the resemblance which some Ayrshire cows have to that variety. The characteristics of this breed are thus described by Mr. Aiton:—"Head small, rather long, narrow in the muzzle, eye small, smart, and lively, horns small, crooked, and set at considerable distance from each other, neck long, rather slender, tapering towards the head, with no loose skin below, shoulders thin, forequarters light, hindquarters large, back straight, broad behind, the joints rather loose and open, carcass deep, legs small and short, with firm joints, adder capacious, stretching forwards, the milk veins large and prominent, teats short, all pointing outwards." The Ayrshire cow is very docile, feeds well, is easily managed, and, as a Dairy cow, is equal to any other. It is inferior, for feeding, to the Devons, Sussex, Hereford, Lancashire, and Durham breeds. Many of the Ayrshire cows, when properly fed, will yield from 6 to 8 gallons of milk per day, during part of the summer. The quantity varies much during the year, from 1½ to 6 gallons or more, and the highest average of the milk yielded by this breed is 1,000 gallons per annum. It is only some of the finest cows that will yield such a quantity as this; from 500 to 750 gallons may be calculated as the most general yearly produce. Every 2½ gallons of milk will afford a pound of butter. About 25 gallons of milk will give a stone of cheese." The Short Horn breed is considered of great value, both for milk and feeding. They are large in the carcass, well proportioned, broad across the loins, chine full, legs short, head small, but handsome, neck deep, but in keeping with the size of the body, color generally red, white, or red and white mixed, spotted or roan, hide thin. The flesh of this breed is thick, close-grained, retaining the juices well, and, from this circumstance, is in repute for victualing ships going on long voyages. Regarding the milking qualities of this breed, Mr. Dickson, an eminent cattle-dealer, who has had extensive experience, says:—"It has been frequently asserted that the Short Horned cows are bad milkers, indeed that no sort of cattle are so deficient in milk; but this deficiency of milk does not proceed from the circumstance of the cows being of the Short Horned kind. Had the flesh been neglected as much as the milk, by the eminent breeders, and the property of giving milk as much cherished as the development of flesh, the Short Horned cows would have been deep milkers. Indeed it is not to be doubted that when the general secreting powers of the animal system have been increased, the power of secreting milk will be increased with the power of secreting fat. All that seems necessary is to encourage the power of that secretion which is most wanted for the time. It would be to desire an impossibility, to procure the full development of flesh, fat, and milk, at the same time; but there is no absurdity in de-

siring a large secretion of flesh and fat at one time, and a large secretion of milk at another, from the same cow. Accordingly this is the very character that has been acquired by Short-horned cows. They will yield from 6 to 16 quarts a day throughout the season, and they are such constant milkers that they seldom remain dry above six weeks or two months before the time of calving." Further he says,—“I know a Scotch breeder who had a Short-horned cow which gave fifteen quarts a day during the flush of the grass in summer, and never went dry for two seasons.” Crosses between the Short-horns and Galloways have produced excellent milkers. Having given the testimony of two breeders as to the merits of the Short-horned breed of cattle, I would remark that there is no breed that has maintained their superiority in England equal, or nearly equal to them. The high prices that they have for many years past sold for, and still continue to command, is, I think, very decided evidence in their favor; and in the United States they are in very greatly more favor than any other breed. Some of our spirited breeders in Canada have realized prices for calves, heifers, and bulls, that would have purchased herds of common cattle. My own experience convinces me that great advantages will result to any farmer who procures the use of a good Short-horned bull for his cows, and that if it were possible to obtain a sufficient number for the whole country, the value of the cattle would be doubled in four years. I hope the time has now passed away when the miserable animals that have been allowed to run at large upon the roadside will be tolerated, and that all who rear cattle will understand their own interest well enough to induce them to procure male animals—at least from one or other of those breeds—the excellencies of which have been proved beyond a doubt. I am quite aware that a strong prejudice exists in favor of what is called the native breed of Canada. Now, it is hardly necessary to assert, that there is no such thing as a really native, indigenous breed of cattle in Canada; although some persons have entertained an idea that there might have been. The “Native Breed” were introduced into this country, from time to time, by settlers, and are the produce of cows of various breeds, kept up by the introduction of superior animals from time to time. Since my own recollection, I can name several—the Wixon family, of Pickering, had the first valuable animal that I recollect. When the common calves of the country were worth four or five dollars each, they were able to get for theirs ten, fifteen, twenty, and twenty-five dollars. Mr. Cornell, of Scarborough, introduced an excellent bull, and traits of his blood are still visible in that township; but for want of care and attention they have become nearly extinct. Had a Sir William Quinton, a Mr. Milbank, or a Mr. Charles Colling, or any other equally spirited and intelligent breeder, been here, to keep none but the very best of those animals, and introduce, from time to time, such as would remedy perceptible defects, the result might have been as successful there as in England; but in the then condition of this new country, such a course was not possi-

ble. Now, however, the case is very different, and it only requires a combined effort, on the part of the farming community, and a determination to breed from none but the best of the several improved breeds, that have been introduced, with a continuation of the spirited efforts of the few importers who have done so much for their country's benefit, to raise our stock of cattle to the highest degree of eminence—a consummation which I hope may be realized at no distant day.

Some conversation then took place amongst the members present, on the subject of the evening, and it was

Moved by Mr. Lee, seconded by Mr. Hill, that the best thanks of the meeting be given to Mr. Thomson for the excellent paper on cattle, read by him, which was carried unanimously.

The next meeting was appointed to take place at Davis's Inn, 4th concession, on December 6th.

MR. MECHE ON LANCASHIRE AND CHESHIRE FARMING.

At a recent meeting of the Manchester and Liverpool Agricultural Society, held at Altrincham, Mr. Mechi made some very pertinent observations, which we subjoin:—

Mr. EDWIN CHADWICK proposed “The Royal Agricultural Society of England,” and in the course of his address said that in making inquiries to ascertain where there was the least drainage, and most need of sanitary reform, he made inquiry of the candle manufacturers in London as to those parts of the kingdom whence they got the greatest quantity of rushes, and of the finest quality? The answer was, that the greatest quantity and the finest quality of rushes came from the counties of Lancashire and Cheshire. (Cheers and laughter.) Drainage would remove rushes from the land, and would repay itself in three years, according to his experience. (Cheers.)

Mr. Mechi, of Tiptree Hall Farm, in Essex, on rising to respond, was received with loud cheers. He said: I believe, my lord, it falls to my duty to return thanks on behalf of the Royal Agricultural Society of England. I have a very great respect for that society; I believe it has conferred very great benefits on British agriculture; and I believe if every farmer in the kingdom had the journal of that society on his table, it would be not only to his credit, but his profit. (Hear, hear.) I want to see British agriculture more elevated in profit, in sentiment, and in character. It wants more education, more intelligence, and more capital, and that can only be attained by the concurrence of landlord and tenant. I believe we are never so well off as when we are dissatisfied with ourselves. If Manchester had not been dissatisfied with the spinning wheel, what would Manchester have been at this moment? And so it is with agriculture. Believe that you are only just beginning to act, and you will do well for yourselves. But you cannot do it with your present appliances. Your

land is undrained, your buildings are unfit for a respectable farmer—(applause)—your fields are too small, and your hedgerows are too numerous. (“Whose fault is that?”) I have been told, but I do not believe it, that it is because game is respected that your fields are small. But I won't believe it, because I know that the aristocracy of this country have a very high sense of their position and dignity, and are ready to fall in with that which is for the benefit of the country. We want to know more of the requirements of agriculture. In the largest fields in Norfolk I have seen four fields for a thousand acres [cheers], and there are more partridges in the fields of Norfolk than you ever see here. And how is this done? Because the farmers of Norfolk, liking to see the liberal landed proprietors enjoy their sport, drill a few rows of buckwheat in their turnips, and they always have capital partridge shooting. [cheers.] I tell you, that you cannot go on in Lancashire and Cheshire as you are going on now. [Cheers.] Your farmers cannot spend money enough—they cannot be intelligent enough—they cannot be good customers enough to the other classes of the community, because your system is a starvation and poverty system. [Applause.] Excuse me for speaking honestly, but I believe that railways and the facilities of intercourse between man and man in this kingdom will cause a great change—will enable farmers and landlords of any poor districts to go into well-farmed districts in other parts of the country which have been reclaimed and improved and made fruitful by the investment of capital and intelligence. I do not charge upon agriculture any particular prejudice more than belongs to any other class of the community. We know that in manufactures, and in every invention and improvement, we have always had great contention against old customs and prejudices. But I address myself now to the manufacturers of Manchester. We know there are men in Manchester who, by science and capital, are now becoming princes, and are purchasing the broad lands of the kingdom. I say to them: “You have done great things—you have got a magnificent city, but take care to learn agriculture. Take care to raise amongst you, for money is no object, a college in which agriculture can be taught as a science.” (Cheers.) I said so to-day to a manufacturer, and he said, “Mr. Mechi, I will give you £500 for that object tomorrow.” (Cheers.) To the great landed proprietors I would say: “Look out amongst your tenant farmers for some son—some young man whose father, having a desire to make his son more than himself, has given him a good education, and offer some premium, pay some part of the cost to the tenantry on your estates, that your sons may go to those colleges now existing. Some years ago, at great personal and pecuniary inconvenience, I took an interest in the college at Cirencester, in Gloucestershire. That college was founded for the sons of the farmers of England, but, I say it with great truth, that the education was so inferior, that, when we got professors of the highest class, we found it was throwing pearls to swine; for the education received

by that class of individuals would not enable them to imbibe that science which would have been so beneficial to them. Therefore I say to the landlords, and particularly the Manchester gentlemen who have plenty of money and plenty of ability—establish a noble college in which the agriculture of this country shall be taught. You have not got all the difficulties to go through that we had at Cirencester. That college is established, and we are turning men into the world who will be an honor to agriculture. Do you the same. I know you will do it, and why? If you ask me why I am here to-day, I say it is to do honor and give my support to an excellent man in Manchester, Mr. Brooks. (Loud cheers.) I felt that when Mr. Brooks threw open his farming operations and drainage to all England, with a noble and liberal spirit, he was doing a great good for agriculture. I say, as a general rule, if we had more knowledge—and I have had to buy my experience, as we have all had to buy our experience—but, I say, if you had great and established rules and principles of action, those questions of drainage, farm buildings, steam engines, and other things, would not be questions of dispute, but they would be accepted as common and every-day occurrences; and I have no doubt we shall have no discussion on the subject fifty years hence. (cheers.) They will be matters of course, like your breakfast, dinner, and tea. There was one point touched upon by Mr. Chadwick, which is of the utmost importance. We, as farmers, think that if we keep 200 sheep to 100 acres we have our farms well manured; but when you have 400,000 sheep in Manchester—(cheers)—or what is better, that you have 400,000 men, women, and children, with all their cats and dogs (laughter), horses, and everything else, and allow all these advantages to be wasted, you are not sane men. Now you are coming to Board of Health principles, and carrying away all this in tubes; and I hope you will find some spirited men wise enough to look at profit and say, “I will give £1,000 a-year for the sewerage of Manchester. I will get an act of parliament to bring it fifteen miles away. I shall put it on 10,000 acres of land, and I shall make £100,000 out of it.” [Applause.] I am not speaking theoretically on this question—I have laid down two miles of piping myself, on my own farm, for the conveyance of liquid manure; and I can only say that I should be too happy, if I were within five miles of a town, to be able to get the manure from it. I assure you it will pay. I tell you honestly you could put a ton of liquid manure, send it five miles, put it on your farm, and throw it down in a shower, plough it, spread it in the soil for three farthings a ton. If you don't do that, I can only say that the men of Manchester are not what I calculated them to be. The Almighty has blessed us with a bountiful harvest—consequently Consols go up, money gets cheap, labor will be well employed, and our friends in Manchester are rejoicing at the prospect of an abundant trade. I say to you, on public and on national grounds, do all you can to mitigate the vicissitudes of the season which are sometimes so fatal. You can only do that by

manure and drainage—putting in water where it is dry—taking it off where it is wet. You ought to be the richest agriculturists in the world. Why? because you not only consume all you grow, but you import every imaginable thing that is good for man. Your port wine, your sherry, your turtle, coffee and sugar, all ought to add wealth to this country. You bring it, throw it down the river, and go to Peru to buy burnt dung at £10 per ton. [Hear, hear.] I conclude by saying, on public grounds, but at some personal inconvenience, that my farm is open to any gentleman who wishes to carry out these great and important measures so beneficial to us. Let them send their men to my farm—let them work with my men—let them save all the costs of the experiments which the introduction of a new system entailed on me. They are welcome to it, and I do it on public grounds. Mr. Mechi sat down amid prolonged cheering.

NEW YORK STATE AGRICULTURAL EXHIBITION, 1854.

From the Journal of the Society.

The Fourteenth Annual Exhibition of the Society was held at Hamilton Square, in the city of New York, from the 3rd to the 6th of October—the American Institute and the New York Horticultural Society uniting in the Exhibition. The arrangements of the grounds, under the directions of Messrs. L. G. Morris, E. G. Faile and Thomas Bell, on behalf of the Committee of Arrangements, were of the most perfect character, and afforded to exhibitors in every department more complete and satisfactory disposition of their stock and articles than at any previous exhibition of the Society. For the two first days of the exhibition the weather was very unfavorable, and retarded much the arrangements as well as the attendance. The two last days, however, were very favorable, and the attendance, up to the very close of the exhibition, was quite large. In the stock department, the show of cattle, sheep and horses, was of unusual excellence, and has never been equalled in this State, and it is doubted whether any exhibition in this country equal to this, in point of quality, has ever been made. The show of horses was large and excellent in the classes exhibited. The display of mules was one of the best that has ever been made in our country; and must exert a very important influence in introducing this useful animal to the notice of our farmers. There were upwards of sixty on exhibition.

The implement department was fully represented by a very choice display of the most improved and valued implements. Of mowers and reapers, the very latest improvements were on exhibition, and some of them a very great advance upon any heretofore shown.

The fruit and flower department was of unusual excellence; the western part of the State, as usual, exhibiting some of the finest specimens of fruit. Messrs. Ellwanger & Barry, A. Frost & Co., N. & E. S. Hayward, of Rochester; E. C.

Frost, of Chemung; N. Crittenden, of Ithaca, and H. G. Dickinson, of Lyons, were among the largest contributors: Mr. J. W. Baily, of Plattsburgh, received the Silver Cup, for the greatest number and best display of apples. Hovey & Co., of Boston, Mr. Potter, of Princeton, N. J., and Mr. Pennington, of Illinois, added largely to the interest of the exhibition by their splendid display of pears, grapes and apples.

The vegetable and grain departments, as well as the dairy, were very fairly represented, though not as extensively as they would have been in the interior of the State, in a good farming district. Poultry formed an interesting portion of the exhibition, and the various varieties were creditably represented.

The number of cattle, horses, mules, sheep and swine, on exhibition, was 1,250; of poultry, 416. Entries of grain, vegetables, implements, manufactures, fruits and flowers, &c., 415. Receipts, \$9,432.

On Friday, the Society was called together under the large tent of the Society, on the Show Grounds, Wm. Kelly, President, in the chair. A very impressive prayer was offered by the Rev. Dr. Adams, of New York.

REMARKS BY MR. KELLY.

It is to the farmer a cheering fact, that on occasions like this such multitudes are always assembled, for it gives evidence that there is everywhere in the popular mind a deep abiding interest felt in the progress of agriculture.

I need not tell you that this is the first time of holding a State Fair in the city of New York. In view of this movement, it was feared, by some of our most experienced members and officers, that we were doomed to disappointment; that the inhabitants of the city were too much engrossed by business, or too regardless of the objects we seek to advance, even to visit our exhibition when we should bring it to their doors. The crowds of people that have been seen on these grounds for the last three days, prove that these apprehensions were not well founded—no.

Agriculture, earliest of all the arts, has visited the home of her descendants, her daughters Mechanics, Science and Commerce; they have welcomed her, acknowledged that they spring from, and are dependent upon her. She in turn is ready to confess her obligations to them. To the Mechanic Arts, she owes those ingenious and useful implements by which the labors of the husbandman are lessened, and rendered much more effective. Thus, by her aid, the cost of farming is made cheaper: Science applies Agricultural Chemistry to analyze the soils; she detects their deficiencies, and teaches how best to supply those defects; she thus makes farming productive. Commerce takes these surplus products, and, by her system of exchanges, carries them to a market where they are needed, and where they will command a good return; farming is by her aid made profitable.

It is interesting and instructive to reflect that we are all mutually dependent; that our interests are bound up together; that we are members, so to speak, of one social body, each being essential

the completeness and prosperity of the whole. I am most happy of the opportunity thus publicly to express the thanks of the State Agricultural Society to the authorities of this city, for the kind and cordial reception they have given us. They voluntarily tendered us the use of these most beautiful grounds, and have done everything they properly could do, to facilitate us in the management of the Fair. To his Honor the Mayor, and to the Presidents of the Board of Aldermen and the Board of Councilmen, our thanks are especially due.

And here I must be allowed to speak of the disinterested course pursued by the two great Institutions of your city, having at heart kindred objects with our own. The time-honored American Institute, represented here by her venerable Secretary, and the Horticultural Society, many of whose most efficient members are now present, cheerfully came forward, and not only consented to forego their usual exhibitions, but agreed to unite with us on this occasion, that so, by a three-fold effort, this Fair might be—what you are all ready to declare it—worthy of the great City and State of New York.

But I will not longer detain you—you are impatient to hear the distinguished gentleman who is to address you—a man known by fame to all—respected by all. I beg leave to introduce to this audience the Honorable John P. Hale, of New Hampshire.

Mr. Hale delivered an Address of great interest and power, before a very large and attentive audience. At its close, on motion of Hon. John A. King, of Queens, the thanks of the Society were tendered to Mr. Hale, for his very instructive and eloquent address; and a copy of the same was requested for publication in the Transactions of the Society.

FARMS IMPROVED BY KEEPING SHEEP.

To some extent, keeping sheep is found to improve a farm, as they consume much feed that is left by other stock and lost, and at the same time enrich the ground, and give it a better and moother appearance. This is shown by instances quoted in the Transactions of the Norfolk Agricultural Society, which we relate in brief:—

A man, having a small farm, formerly kept forty sheep, four cows and one horse, and had good enough for them the year round. The price of wool falling, he sold his sheep, and for a number of years has kept other stock altogether. He now keeps but three cows and one horse the year round, and pastures two cows extra through the summer, sells very little hay—not half enough to keep another cow; he has the same amount of pasture and mowing as when he kept the forty sheep in addition to his other stock, and yet his farm does not look near so well as then. He used to raise turnips among the corn for his sheep to eat in winter, and gave them besides a few bushels of grain. The lambs, however, were more than paid for his extra feed.

Another farmer for a great number of years kept

about sixty sheep, eight or nine cows (or other stock equal), one pair of oxen and one horse. After keeping the sheep for a number of years, he found he could then keep as large a stock on his farm with the sixty sheep, as he could keep without them before; showing that they had improved the farm to furnish their own support. To stock a farm entirely with sheep would not be so profitable as to keep a limited number—yet it would pay as well as other stock. The object is to keep enough to consume that part of the vegetation peculiarly fitted to sheep, and which other stock will not eat, adding at the same time enriching elements to the pastures and yards by their manure. It is the opinion of many farmers, that pastures for other stock may be improved by keeping a small flock of sheep upon them a portion of the time, and the opinion seems fairly supported both by reason and experiment.—*Wool Grower.*

SHEEP IN WINTER.

In the first place, sheep should be provided with ample and warm accommodations for shelter. Therefore, if you have not one already, build a shed of sufficient dimensions to accommodate the number of sheep you have to winter. If the number of sheep be large, have a shed for every fifty or sixty head. Each shed must communicate with a lightly-enclosed yard. Access to each shed must be through an opening at one of the ends; ventilation other than the doorway must be provided. The floor of the shed should be covered in the first instance with three or four inches in depth of clean straw, when from the accumulation of sheep dung and discharge of urine the straw becomes dirty, the surface must be covered with fresh straw. Plaster should be strewn over the floor at least once a week.

For convenience of feeding grain or roots, a trough ranging round the shed should be provided. The sheep should have salt always accessible to them. The best plan to secure this would be to have a trough in which rock-salt should be constantly kept. The sheep should have access to the yard at all times.

Three pounds of hay, or fodder, or its equivalent in meal or roots per day will sustain each head of sheep, which should be given them thrice a day, viz:—early in the morning, at noon, and at an hour before sunset. Occasional feeds of roots, say twice or thrice a week, are conducive to health—potatoes, or rutabaga, or common turnips, will answer. Water should be given to the sheep twice a day, to wit, in the morning and in the evening.

Sheep can be kept housed during the winter, altogether, to advantage—by a little extra care, as above—letting them out in fine weather for airing and exercise.—*American Farmer.*

CLASSIFICATION OF SOILS.

The want of some system of classifying soils has long been felt. The arbitrary terms in common use convey no definite idea of the subject.

A writer in the *Farmer's Magazine* recommends a classification based on analysis. We are not prepared to say that this mode is at present practicable, but it is at least worthy of attention. His plan is as follows:—

1. *Silicious soils*, containing from 90 to 95 per cent. of sand. These would be divided, on the same principle, into blowing sand, coarse sand, good agricultural sand, and calcareous sand.

2. *Loamy soils*; 70 to 90 per cent. of sand separable by washing, subdivided in coarse sandy loam, fine sandy loam, rich loam, and calcareous loam.

3. *Clayey soils*, with 40 to 70 per cent. of sand; divided into clay loam, clay, and calcareous clay. Each of these soils, termed calcareous sand, calcareous loam, &c., contains 5 per cent. of lime.

Marly soils constitute a fourth group, in which the proportion of lime ranges between five and twenty per cent., and are divided into sandy marls, loamy marls, and clayey marls.

Calcareous soils contain more than 20 per cent. of lime. They are divided into sandy calcareous, loamy calcareous, and clayey calcareous. While in calcareous sands, clays, and loams, the proportion of loam does not exceed 5 per cent. The difference of composition denoted by difference of name, is similar to the sulphates and sulphites of chemical nomenclature, which contain different proportions of sulphuric acid.

According to the quantity of pebbly fragments yielded by a square yard, or by a cubic foot of the soil, they may be denominated *gravels* or *gravelly sands*, loams, and clays:

Vegetable soils vary from the common garden mould, which contains from 5 to 10 per cent. of vegetable matter, to the peaty soil, in which the organic matter is about 60 to 70 per cent. They will be vegetable sands, loams, clays, marls, &c.

Considered geologically, soils may be classed in three groups:

1. *Local soils*, or those derived exclusively from the debris of the rock on which they rest, unmixed with materials of other rocks.

2. *Erratic soils*, containing the unmixed materials of several, and, in many cases, distinct formations, transported by currents of water which, at the close of what is called the testary period of geology, acted irrespectively of the present lines of drainage and sea levels.

3. *Alluvial soils*, composed of finely divided matter, transported and deposited by rivers and tidal currents, in subordination to the existing levels and lines of drainage.—*New England Farmer*.

The love of admiration is the canker upon the heart of many a lovely woman. It is vanity in its worst form. It insinuates itself into the moral nature and either makes the woman an object of vulgar stare, or public notoriety. When her beauty is gone, the absence of the stimulant to her weakened nature leaves her irritable and disappointed. Beauty is a dangerous inheritance, and requires a special duty from the owner of it. The destiny of a beautiful woman is nobler than to be stared at by a vulgar crowd, or flattered by heartless society.

GIBBS'S ROTARY DIGGING MACHINE.

At a late meeting of the American Institute, Professor Mapes illustrated this new agricultural implement by a working model. The inventor has improved the original, and is now about to add one of the Mapes subsoil ploughs to loosen the ground forward of the teeth, and keep them steady without so much weight. Professor Mapes thinks this machine, judging from experiments with the first rough machine, will do more than three times as much work as a plough, and more than three times as well, with the same team.

The plough requires just as much propelling power to overcome the friction of the land side as it does to turn over the furrow slice, and all that friction is worse than thrown away—it compacts the land and injures it.

There is no power lost in this implement; it is like forking over the soil, and will work three feet wide and fifteen inches deep with one pair of oxen, rendering the land more pulverulent than a dozen ploughings.

Mr. Meechi said the plough is doomed, in speaking of Samuelson's machine; yet this is much more perfect. In his machine much is lost by friction of gearing—in this there is none—the weight of the machine trips the teeth and throws them out. His machine requires six horses, this two oxen. English farmers pay 40s. an acre for spading and 20s. for ploughing, and find their account in the extra cost of the work. The Harsimus gardeners, who raise vegetables for this market, pay \$75 an acre rent. They could not pay half of that if they depended upon the plough alone. By the spade they get three or four crops in a season. True, they manure high, but that is not all. Unless you render your land pulverulent, you might as well put your manure in the garret to raise potatoes in the cellar. Land that is well forked up will produce more without manure than poorly ploughed land will with it.

Now, if we find that this machine, as I predict, it will, can do the work of the man with a fork, rapidly and easily, the grand desideratum has been reached, and for much of the work of the farm the plough is doomed, but not, as Mr. Meechi thinks, for all.

BENEFIT OF DITCHING.

About one year ago, I bought 120 acres of land, for \$400. There was at least \$350 worth of improvement on it. The reason I bought it so cheap was, it was so wet that the former owner could not make a living on it. He told the neighbors that it was too wet to raise grass. He said if he would sow clean timothy seed on it, in two years it would turn to wild grass. Well, last spring I went to work and cut a ditch large enough to drain it decently. Some of the time I worked in the water to the top of my boots, and that not a little of the time, for I cut the ditch in the lowest of the ground. The consequence was the water had a chance to run off, and my ground

was fit to plough about as soon as my neighbors' dry land. I planted six acres of corn, on the part I ditched; and from that six acres, I took off 400 bushels of shelled corn that was good and sound. This proves to my satisfaction that our low, wet lands, when well ditched, are our best lands. I would say to one and all of those for whose benefit I write, hold up your heads: "For in due season you shall reap, if you faint not"—in ditching. Do not back out at the noise of a few frogs; just go to work and dig a good ditch, and drain the water off from them, and they will soon be missing.

LUTHER BROWN.

DAMSON CHEESE.

However much we may advocate fruit culture in our pages, we leave the cooking department to others; but there is no general rule without an exception. There are many ways to do many things, but there is only one way to make good Damson Cheese. Whence it took the name of cheese, we know not, unless it be from its firm, cheese-like texture, when well made—which it will be if the following recipe is adhered to:—

Put the Damsons in a stone jar, which place in an oven or on a stove until the juice runs freely, the fruit is perfectly tender, and the stone separate from it. Remove the stones with a silver or wooden spoon; measure the pulp in a preserving pan, and place it on the fire and boil, until the liquid is evaporated, and the fruit left dry. Whilst this is doing, have ready a quantity of white loaf sugar, allowing half a pound of sugar for every quart of pulp, as measured when put into the pan. Let this sugar be rolled fine, and then heated in the oven in a pan until it is so hot that the hand cannot be kept on it. In this hot state, mix the sugar thoroughly with the dry pulp, also hot from the fire. It will become very firm, and does not require to go on the fire again. Put it into jars or glasses whilst hot, and when cold, cover and put away.—*Horticulturist*.

in this manner until just before the commencement of hard frost that would be liable to freeze the apples; the box is then banked up with earth, a few inches around the bottom, to exclude the air from going under it, the casing of two inches around the box is filled with dry loam or any kind of dry earth, and the top under the roof is also covered to the depth of an inch or two with earth, which effectually excludes the air from the apples; they then freeze up solid, and no rotting takes place, and will be found in excellent condition in the spring; and it is rather surprising that the flavor is not in the least injured. The air is left to circulate freely through the latticed bottom—the cover being left on loose, so as only to shed the rain. An opening with a lock-up shutter may be made near the top of the box, for the convenience of taking out apples at any time.

The above plan makes it an easy matter to house the apples without removing them from the orchard. Now, I would propose from the above data, that fruitgrowers erect a neat and ornamental building in their orchard, or in some convenient place, to be built on the same principle, to be lined up in a similar manner, and the casing filled with earth, or any substance that will exclude air, and act as a partial non-conductor of heat, with means for ventilating in the fall.

From some cause, there are very few cellars that will preserve apples or other fruit during a Canadian winter. Having tasted of the apples alluded to, I can bear evidence that they have preserved the finest flavor, and have been kept to the date I am now writing. There is a difficulty, in other methods, in keeping the temperature at a certain point in this changeable climate, which would be otherwise necessary for apples.

Yours respectfully,

T. G. WILSON.

Ontario, Saltfleet, C. W., May 16th, 1854.

TEETH OF ANIMALS.

The following remarks are taken from the Transactions of the Royal Society, and may be read with interest:—

Professor Simonds, the Veterinary Inspector of the Society, proceeded to deliver the first part of his Lecture on the Indications of Age, furnished by the structure of the teeth and the general developments of growth in cattle, sheep, and pigs. On this occasion, he confined himself to the indications furnished by cattle, reserving for his second lecture the consideration of those connected with sheep and pigs. The discussion of the various points brought forward was of the highest interest in a scientific and practical point of view, and their elucidation strikingly promoted by the lecturer's continual reference to a great number of colored diagrams on a large scale. He particularly alluded to two of the results of his own investigations on the structure of the teeth, as being, he believed, perfectly new to physiologists.

CHEAP AND EFFICIENT MODE OF SAVING APPLES.

MR. EDITOR,—I send you a description of a new and interesting method of saving winter apples, which a neighbor, Mr. Amos Chambers, has found out and practised for three seasons with success. It consists in making a large box of inch boards, sufficient to hold several waggon loads, which is lined up with the same material, and nailed to two-inch scantling, leaving that space between the outside and the inside; the bottom is made of lattices; and the whole rests on the ground upon four-inch scantling. The winter apples are carefully gathered and put into this box, which is placed near the middle of the orchard, in the shade of an apple tree. The top of the box is covered over with boards in the same manner as the sides, with two thicknesses, leaving a space between them—the top of course made waterproof to exclude the rain. It is left

1. After describing the dentine enamel and *crusta petrosa* as the constituents of the teeth, and also explaining the so-called osteo-dentine, he remarked that the latter substance did not fill the pulp-cavity in an old tooth of any of the domestic Herbivora. The obliteration of this cavity is effected by the pulp continuing to form dentine, and not by its ossification or conversion into osteo-dentine, as stated by writers on the structure of the teeth.

2. In proportion as the pulp diminished, so was the supply of nutrition to the tooth cut off from the inside, and, to provide for this, the dental tubes in the fang became changed into bone-cells, or, in other words, the *crusta* increased at the expense of the dentine, and thus the tooth drew its nourishment from the blood sent to the sockets in which the teeth are embedded.

In reply to a question by Sir John Johnstone, Professor Simonds had no doubt that the teeth of horses would, to a certain degree, be affected by the same general forcing system; but, at that time, no data connected with that point had been collected, and he was consequently unable to give more than a general opinion of the probable result of the adoption of such a course in the case of the horse.

HOLLOW HORN DISEASE.

A writer in the *Boston Cultivator* gives the following as the symptoms of, and remedy for, the hollow horn disease:—"The symptoms are dropping of the head and ears, lying down, turning the head over the back, towards the shoulders, as if pain in the head. This I think is a spinal disease, affecting the brains and horns. Cure—Take a large table spoonful of sulphur, and lard sufficient when warm to make it soft like paste, pour it on the top of the head at the root of the horns; take a shovel or flat piece of iron, heat it, and hold it over the head so as to heat the paste and warm the top of the head, as much as the beast will bear; repeat once in two or three days, and bore the horns on the under side, two or three inches from the head, so as to let in fresh air, and let the putrid matter out, if any be collected. I have never known this to fail, if taken before too far gone. I have cured one cow when the top of the head was so full of matter that I opened a place above the ear, which discharged more than a half pint. This was in the summer; the cow was fattened in the fall and killed; the head was all right, excepting a place at the roots of the horns, about as large as a small spoon bowl."

HORSEBREAKING FOR HARNESS.

Before the horse is attached to any vehicle, the harness should be allowed to remain on him in the stable several hours during two or three consecutive days; he should be led out so that he may become thoroughly accustomed to the trappings, and a cord six or seven feet in length should be fastened to each trace. With this the

horse is quietly led about, one man performing that duty while another follows, holding the afore-said cords, which, as the animal moves forward, are to be strained, so that he feels a slight pressure of the collar upon his shoulders. The intention of this treatment must be obvious; if the horse is alarmed by the effect of the collar the man holding the cords which are affixed to the traces can instantly relax them; and again when he finds his pupil is reconciled, he may renew a moderate strain, and, finally, as much resistance as he has power to create. By this means the most timid horse will gain confidence, and, by perseverance, the most refractory may be overcome. A horse when first encumbered with harness, if immediately attached to a vehicle, is astonished when required to move, at finding a pressure on his shoulders which he had never before experienced. He discovers another novel apparatus for confinement, he is in fact trammelled, and endeavors to escape;—probably he plunges, kicks, or rears, and becomes difficult to manage; but by the simple process just recommended all that is obviated.—*Hints on Training.*

UNITED STATES NATIONAL CATTLE SHOW.

This much-talked-of affair came off at Springfield, Ohio, on the 25th, 26th and 27th of Oct. The weather was delightfully fine, and the attendance of visitors large. The amount of cattle was not so great as might have been expected, but the Durham class was numerous, and their quality never before equalled, as all accounts testify, at any Agricultural Show on this continent. We regret that no Canadian cattle were present, as we are assured by competent authorities, that we have stock, particularly Devons and Ayrshires, that would most certainly have taken premiums. The risk and expense, however, of transporting valuable animals to long distances, will always keep back a large number of the choicest specimens. We observe that Mr. Parsons, of Guelph, and Mr. Askew, of Windsor, were present, and took part in the proceedings of the Show. The subjoined list of the premiums awarded is from an exchange paper:—

The third and last day [Oct. 27] of the National Cattle Show, opened at 9 o'clock with the exhibition of stock for the sweepstakes premium of \$500. For this premium there were five entries of one bull and five cows each. The competitors are Brutus J. Clay, of Kentucky, Solomon Moredith, of Indiana, Jacob Pierce, Wm. Pierce and Arthur Watts, of Ohio. Never before has so splendid a display of thorough-bred cattle been shown on the American continent.

The awards were made to Durham bulls of three years old and upward, as follows:—

First premium of \$300, to "Perfection," bred by Jeremiah Duncan, and owned by Edwin G. Bedford, both of Paris, Ky.; second premium of \$200, to "Sheffield," owned by J. W. Robinson, of Madison county, Ohio; third premium of \$100, to "Belmont," owned by Caldwell & Co., of Fayette county, Indiana.

To two-year olds as follows: First premium, \$200, to "Locomotive," owned by Brutus J. Clay, of Paris, Ky.; second premium, \$150, to "Colonel," owned by R. G. Dun & Co., of Madison county, Indiana; third premium, to "Lafayette," owned by J. M. Sherwood, of Auburn, New York.

To Yearlings—First premium, \$150, to "New-Year's Day," owned by Charles M. Clark, of Springfield, Ohio; second premium, \$10, to "King Cyrus," owned by Geo. M. Bedford, of Paris, Ky.

Durham Cows and Heifers—Three years old and upward—First premium, \$200, to "Lady Stanhope," owned by Brutus J. Clay, of Paris, Ky.; second premium, \$150, to "Duchess," owned by William Palmer, of Fayette county, Ohio; third premium, to "Clara Fisher," owned by S. Meredith, of Cambridge, Indiana.

Two years old—First premium, \$150, to "Fashion," J. Stedden, Warren county, Ohio; second premium, \$100, to "Laura," Brutus J. Clay, Paris, Ky.; third premium, \$50, to "Mary Clay," S. Meredith, Cambridge.

Yearlings—First premium, \$100, to "Lowan," Jeremiah Duncan, Paris, Ky.; second premium, \$75, to "Easter Day," Charles L. Clarke, Springfield, Ohio.

Devon Bulls—Three year olds, first premium, \$100, to "Know-Nothing," owned by N. W. Smith, of Warren county, Ohio; second premium, \$75, to "Herod," owned by L. G. Collins, of Montgomery county, Indiana.

Two year olds, first premium, \$30, to "Moulton," owned by L. F. Allen, Buffalo, N. Y.; second premium, \$20, to "Jake," owned by E. Merritt, Clarke county, Ohio.

Yearlings—First premium, to "Premium," owned by L. G. Collins, of Montgomery county, Indiana.

Devon Cows—Three year olds, first premium, \$100, to "Sapplee," owned by L. F. Allen, of Buffalo, N. Y.; second premium, \$75, to "Frances," owned by L. G. Collins, of Montgomery county, Indiana.

Two year olds, first premium, \$75, to "Dolley," E. M. Merriweather, Todd county, Ohio; second premium to "Devon," N. W. Smith, Warren county, Ohio.

A yearling heifer of L. G. Collins was commended.

Hereford Bulls—Three year olds, first premium, \$100, to "Curly," Thomas Aston, Elyria, Ohio.

Two year olds, first premium, \$50, to "Mystery," W. H. Sotham, Liv. county, N. Y.

One year olds—First premium, \$70, to "Defiance," Thomas Aston, Elyria, Ohio.

Hereford Cows—Three year olds—First pre-

mium, \$100, to "Bolbayle," W. H. Sotham, Liv. county, N. Y.; second, \$75, to "Duchess," Thos. Aston, Elyria, Ohio.

Two year olds—First premium, \$70, W. H. Sotham.

Ayrshire Bulls—Three year olds—First premium, \$100, to "Dandy," P. Melendy, Hamilton county, Ohio.

Two year olds—\$80 to "Wallace," T. W. Barber, New Paris, Ohio.

One year olds—\$75 to "Ducas," P. Melendy.

Ayrshire Cows—Three year olds—First premium, \$100, to "Lassie," P. Melendy.

Two year olds—First premium, \$75, to "Alice," P. Melendy.

Jersey Bulls—Three year olds—First premium, \$100, to "Pat. Smith," R. L. Colt, Pater-son, N. J.

Cows—First premium, \$100, to "Dun," by the same; two years old, first premium, \$75, to "Jersey," by the same; one year old, first premium, \$60, to "Patty," by the same.

Miscellaneous—First premium for working oxen, \$50, C. Fullington, Union county, Ohio; second premium, fat ox, \$50, B. Siedman, Cleveland, Ohio; third premium, fat cow, \$50, J. W. Ware, Fayette county, Ky.; fourth premium, milk cow, \$50, J. W. Brock, N. Petersburgh, Ohio; fifth premium, \$50, steer, J. W. Ware; sixth premium, \$50, Bull Calf, W. D. Pierce, Clark county, O.; seventh premium, heifer calf, W. W. Thrasher, Fayette county, Ky.

The Committee on Sweepstakes, being a premium of \$500 for the best herd, of a bull and five cows, or heifers, of any breed, were unable to agree, after a thorough examination and full deliberation. The attendance has not been as large as could have been desired. On the second day the number present might have reached 15,000, and there was not as large an attendance on the other two days.

The following remarks on the Durham class, which infinitely distanced all the others put together, are taken from the *American Agriculturist*; they are from the pen of L. F. ALLEN, Esq., who was one of the judges on *Sweepstakes*, at this Exhibition:—

THE SHORT HORNS.—If we were to give loose to our feelings while attempting to write of the grand and imposing array that was before us in this matchless class of cattle, our pen would involuntarily fall from our fingers, and we might, perchance, for once in our life, grow eloquent in speech. The number of these on the ground was upwards of a hundred; and they chiefly the pick of the best in Ohio, Kentucky and Indiana, from the native breed as well as the recently imported animals of the kind. Some of the highest-priced bulls, however, were absent, not being now in show condition. Of this class, first in the field, in point of time, were those of Brutus J. Clay, the two Messrs. Duncan, and the two brothers Bedford, of Bourbon county, Ky. They brought in a herd of fifteen cows and bulls. It might be invidious to speak of these fine speci-

mens to the omission of others; but we can truly say, that as they were a selection from the best of Kentucky's prize cattle, they were, combined, a paragon of beauty and excellence. Some of them had taken half a score of first prizes, in their different ages and classes, at home. Their condition for high show was first-rate—not a thing lacking that could add attraction to their qualities. Next to these, out of Ohio, was the fine herd of Col. Solomon Meredith, of Wayne county, Indiana—half a dozen in number, most of them Kentucky bred, with an imported one or two for comparison. Then came the beautiful herds of Dr. Arthur Watts, of Chillicothe, the brothers W. D. and Jacob Pierce, and Mr. Waddle, of Clark county, and many other breeders, smaller in number, but equally meritorious in the quality of their stock. Among them were the Hadleys, the Dunns, Clarks, Steddons Palmers, and others, of Ohio; together with Caldwell, Thrasher, and Davidson, of Indiana, and Ware, of Kentucky. Col. Sherwood, of Auburn, N. Y., also contributed a fine bull—La Fayette—which drew a prize in his class. Mr. Pendergrast, of Chataque Co., Y., also exhibited a fine imported bull, and a capital large milking Short-horn cow. We cannot well particularize, where there was so large an array of excellence; but can freely say that, in any and in all the shows we have before witnessed—and they are of the largest and best ever made in the United States—we never saw so difficult a place to select *the best*, as among the Short-horns got together at Springfield.

But the great contest of the occasion—the hopes, and fears, and aspirations, of the several candidates for victory was the sweepstakes, consisting of a single bull and six cows belonging to any one herd. In this class there were six entries, viz.: Brutus J. Clay, of Kentucky; Solomon Meredith, of Indiana; Arthur Watts, A. Waddle, W. D. Pierce, and Jacob Pierce, of Ohio. As Mr. Waddle's stock was but recently imported, and hardly yet upon their legs from a long sea voyage, he withdrew them from competition, and we did not see them on the ground. Of the herds exhibited, those belonging to the two Messrs. Pierce were in low condition, from the dry season, and although containing several excellent animals, and of great promise, particularly among the young imported heifers, the committee, so far as I could learn, mainly selected for discussion the herds of Mr. Clay, Doctor Watts, and Mr. Meredith. It is no more than justice to say of these, that fifteen finer cows can scarcely, in the aggregate, be found together; and adding a selection from those of the Pierce's imported ones, a score, that even England may be challenged to excel—so ripe were their points, so perfect their condition, and so well selected for an imposing exhibition. Arranged as they were, in a line, each herd headed by their bull, it was the most splendid array of cattle we ever witnessed; and it is not strange that, after a very minute examination of several hours, and two further hours of consultation and trial, the committee of eight, to whom they were referred, should disagree upon the comparative merits, and come to no decision.

This was the fact, and the great trial of superiority of any one herd over another, in a matched competition of Short-horns, has yet to be settled! The pride of three States was enlisted in this, and no one achieved a victory over the other. Each competitor had a right to feel proud of his herd, and gratified that if he had not the best, no one, in the opinion of the public, had a better than his own. Upon a report of the committee to the Society, that they could not agree, they were discharged from further duty.

CANADIAN PROGRESS—THE TOWNSHIP OF BLENHEIM.

We have occasionally copied from the local press the most pleasing and conclusive testimony of the sound and rapid progress which Canada is making in all the substantial attributes of national prosperity and greatness. The following description, taken from the *Ayr Observer*, a recently established and well conducted paper, will apply in spirit to a large number of other townships that have lately come under our own personal observation:—

“This township is about twelve miles long and nine wide. The soil is exceedingly fertile, and the roads are generally good. It is settled principally by Scotch, English, and Dutch, intermixed with a few Novascotians. There was once a time in the history of this township when the inhabitants were exceedingly poor, and some of our old residents can recollect when it used to be common to denominate pine shingles ‘Blenheim Wheat,’ they being at that time the staple production of the township. But those days are passed and gone forever. Blenheim is now, perhaps, one of the first townships in the province, as far as the products, the industry, the intelligence, and the wealth of its inhabitants are concerned. A person travelling through it now will be struck with the appearance of the farms—the houses are neat and comfortable, the barns are extensive, and what is far better, they are well filled. Schools are numerous, and generally well attended. The township has progressed very rapidly during the last eight or ten years, and many a stalwart arm has been engaged in felling to the ground the monarchs of the forest. All the land is taken up; and it can be said of this, which cannot be said of every township that three-fourths of the settlers have clear deeds of their farms. They are exceedingly industrious, and Providence seems to smile on them, as they are generally blessed with an abundant harvest. In the south part there are many excellent old orchards, and in the north there are some old ones. The young and vigorous trees have been planted out by most of the farmers, and ere many years they will be laden with the delicacies of this life. The stock is rapidly improving, and the best breeds are now being introduced by many of the farmers. The township is not deficient in water-power, the river Nith running through a portion of it, and on which are erected not a few

Gristmills and Sawmills, and there are many sites not yet brought into use. The Buffalo, Brantford & Goderich Railroad runs through the township, and there are to be depots at Drumbo and Cheserfield. Numerous villages are springing up and progressing very rapidly, among which may be mentioned Canning, Drumbo, Chesterfield, Washington, Richwood, and Platts-ville.

"This township stands A 1, in the intelligence of its inhabitants. They are all great readers; and, as a proof of this, we may mention that it is not uncommon for the farmers to take three or four newspapers; and, in consequence of this, their children are generally well informed.

"The religious character of the people deserves a special notice at our hands. They are a church-going people in every sense of the term, and their attendance at church is not merely a form, but it has proved a benefit, as can be seen by their every-day deportment, and the discipline of their families. We have not, as yet, lived long in the village of Ayr, but have been astonished at the number of country people, from this and other adjacent townships, that attend our churches on the Sabbath Day. They come to our village in families; and it is, to us, a pleasing sight to see so many hale and hearty old farmers, with their sons and daughters, clustering around them, attending to the 'one thing needful,' while the Almighty is blessing them with all that is necessary for their temporal comfort and well-being."

Editorial, &c.

G. BUCKLAND, Esq., EDITOR.

H. THOMSON, Esq., ASSISTANT EDITOR.

THE AGRICULTURIST—VOL. 7.

The present number completes the sixth volume, of the *Agriculturist*. It is probably more thoroughly *Canadian* than any of its predecessors. The numerous Farmers Clubs that have been organized in various parts of the country, and the interesting, practical, and most useful discussions which have taken place at their meetings, have enabled us to lay before our readers a kind of matter we had long sought to obtain, but with only partial success until the present year. Those who object to "book-farming" and want *practical* information will find it in the present volume, and we trust in future volumes also, upon nearly every important branch of Canadian Agriculture. The reports of these discussions bring out the fact,—which we had never doubted,—that among our practical farmers there are many who not only

understand their business, but can explain it to others by speech, or writing quite as intelligibly as those of any other country. These "discussions" have attracted attention in England, and the United States, as well as Canada, and have contributed in no small degree to create a favorable impression of our country, and its Agriculture. But it is most gratifying to us to know, that the facts, opinions, and suggestions made public by means of these Clubs have been highly appreciated at home, and have excited emulation in many neighbourhoods which has resulted in the establishment of similar clubs. We have every confidence that these meetings and discussions will increase in number and improve in character, and we intend that the "reports" of their proceedings shall continue to form the *practical* department of our journal.

Our "correspondence," though not as extensive as we had hoped it might be, has been of a solid and useful character. The topics discussed at the meetings of Farmer's Clubs, the personal experiences there detailed, have in some measure supplied the deficiency of local information, which we had expected from our correspondents. We trust nevertheless that any subscriber who wishes to obtain information on any point or who thinks he can contribute anything useful to his brother-farmers will not hesitate to communicate with us. We cannot promise to publish everything that may be sent, but shall deal liberally with all.

While we have not attempted mere flashy display in the illustration of our paper, we have endeavoured to furnish cuts when really needed. The important subject of CATTLE, has been very thoroughly treated in the present volume. Besides miscellaneous notices, essays, &c., we have given our readers the substance of Youatt and Martin's work on "The Ox," with wood-cut engravings of the several breeds. The book itself, the most valuable part of which we have thus extracted and reprinted, is sold at 6s. 3d. while the subscriber to the *Agriculturist* has been supplied with the information it contains, with a large amount of additional matter for the small sum of 2s. 6d. if a Club or Society subscriber, and for 5s. if taking it individually. The

"diseases" of cattle will be treated of in our next volume, and probably, the history of the Horse, different breeds, &c. collected from the most authentic sources.

Authentic reports of the proceedings of the Board of Agriculture, Provincial Association, Prize List, &c., &c., appear in the *Agriculturist* only. Without being an official journal, or the responsible *organ* of any Society or Board, it contains everything relating to our Agricultural institutions,—now well organized, and becoming every year more active and useful,—that the general reader is interested in knowing.

To Agricultural Societies this journal is of great importance. Besides the interest it awakens among their members, and the information imparted on general topics, the explanations, notices and suggestions in reference to their organization, management, rights and duties under the law, which from time to time appear in its columns, must give it precedence over any other journal, especially those coming from a foreign country.

The next volume will be improved in some respects, especially in the style of printing, and, if possible, in *paper*. We wish to encourage "home production," and are therefore obliged to use an article that does not *look* so well as it might, though it is really stronger and wears better than imported paper of similar material. We have been promised improvement in color and finish, and hope we may not be disappointed. The Editorial staff will probably undergo some change, though Professor BUCKLAND will continue to give his aid in the Agricultural Department. We intend to merit, and hope to receive a continuance of that patronage which the *Agriculturist* has already enjoyed. It is the only *bona fide* Agricultural journal published in Upper Canada; and having contributed largely to the establishment of the present excellent organization of Associations, Boards, Societies, &c., it surely deserves their countenance and support. We notice that another attempt is being made to palm off upon our farmers an American paper, with probably a page or two added, under the name of the "Canada Farmer." We have no objection to

see American Agricultural journals in the hands of our farmers,—in fact we should be glad to hear that the best of them were more generally read—but the attempt to introduce them under a *false name*, is a sort of "Yankee trick" that we cannot admire. This is not fair competition, and will not be countenanced by those who love truth and hate deception.

The terms of the *Agriculturist* will be the same as usual, although the cost of publishing has increased 20 per cent. during the last year. The January number will be sent to all present *single* subscribers, and a few copies to the Secretary of each Society or Club now taking it. Orders should be sent in as soon as possible.

PROPOSED AMENDMENTS OF THE AGRICULTURAL ACT.

We have received the copy of a Bill introduced by Mr. Felton, member for Sherbrooke, Lower Canada, to "amend" the Act "establishing a Bureau of Agriculture," &c. We are quite ready to admit that the Act in question could be amended in several points, but we must say that the proposed Bill of Mr. Felton, who, we believe, is a lawyer by profession, will prove the very reverse. It may be that the Lower Canada Board of Agriculture, or some member of it, has suggested the so-called "amendments" of Mr. Felton, but we think before the *machinery* of so important an Act is interfered with, the Board of Upper Canada, or some of those acquainted with, and interested in the practical working of agricultural institutions in this section of the Province, should have been consulted. The agricultural *system*, as it may now be called, has been in operation in Upper Canada for some years,—at least the most important parts of it. Experience pointed out the necessity for the "amendments" that were embodied in the consolidated Act of 1852. The organization of a "Board of Agriculture," and an "Association" connected with it, was a *new* thing in Lower Canada. They have held but two shows under the new system, and can hardly claim to understand it better than those who framed the law, and have had a longer experience of its provisions.

We have not space to comment fully upon the bearing and effect of the proposed "amendments." It might be sufficient to say that nothing has occurred in this part of the Province to warrant them. If the Bill were confined to Lower Canada, and the friends of Agriculture there are satisfied with it, we could not object; but we protest against any tinkering of the Agricultural Act, so far as Upper Canada is concerned, without at least an expression of opinion, a petition, or a hint, from some Society, Board, or Association of Upper Canada. The chief imperfections in the present Act, are the very "amendments" introduced by parties who had not studied the measure, while it was passing through the Legislature. We are not therefore much in favor of hasty or ill-considered attempts to *amend* a system, until it is proved faulty, and until those who are interested in, or well acquainted with its practical operation, approve of the proposed remedy.

We may mention that one of Mr. Felton's "amendments" is, to place the election of the members of the Board of Agriculture in the hands of the President and Vice-president (he does not seem to know that there are *two* Vice-presidents) of each County Society, or two deputies in their stead. At present the County Society at its annual meeting is authorized to make the election. Why the constituency of the Board should be thus narrowed, and its influence and status correspondingly lowered, we cannot learn. Another "amendment" is, to compel the election to be made on the last day of the annual meeting of the Provincial Association. The experience of several years has clearly proved in Upper Canada, that the occasion of the Exhibition is the worst possible time to transact any business apart from the show itself. Another amendment is, to make the Board (and not the Directors of the Association as at present) appoint the place for holding the next show, &c. This duty was, for very good reasons, cast upon the Directors of the Association, who are composed of representatives from each County Society, including the members of the Board. Jealousy and ill-will are thus, in a great measure, prevented. All parts of the country are fairly represented, and

no one can complain of the decision. The Bill is loosely drawn, and will introduce doubt and confusion instead of improvement. We hope it will receive a "six months' hoist," or be limited in its operation to Lower Canada.

PARIS WORLD'S EXHIBITION OF 1855.

The Executive Committee of the Provincial Commission appointed to ensure a fitting representation of the industry and resources of Canada at the World's Exhibition to be held in Paris in the year 1855, have published a report recommending the course to be adopted throughout the Province. They propose that local committees should be formed in the chief towns of each County in either section of the Province, to consist of all members of the commission lately appointed by Government, all members of both branches of the Legislature, all Wardens, Mayors and Reeves, Professors of Colleges, Presidents and Secretaries of Agricultural Societies, and Presidents of Mechanics' Institutes and other scientific bodies. They also propose that Central Local Committees, to be organized in a different manner, shall be formed at Montreal and Toronto respectively, whose duty it shall be, in connection with the Local Committees, and the Executive Committee, to take active measures to ensure the best possible representation. Appended to the report is the proposed classification under which articles shall be forwarded. The classification adopted is the same as at the London Exhibition in 1851. The following is the conclusion of the Executive Committee's Report:—

To assist the public as much as possible in the meantime, the Committee propose appending to this report a concise table shewing the classification adopted at the London Exhibition, and the awards of the Council Medals, also the names of Canadians who obtained Medals or "Honorable Mention." A more detailed list may be given hereafter, but the Committee are anxious that as little delay as possible should take place in developing their scheme to the public.

The Committee being of opinion that voluntary effort is not to be relied on, have obtained the sanction of the Commissioners to the principle of paying for all articles sent to the Paris Exhibition, but at the same time they propose that the contributors should receive all prizes or honors which may be awarded to the articles sent by

them. The great difficulty in carrying out the plan of purchasing is to avoid partiality, and the Committee have anxiously considered this point, and have determined to recommend:

1. That all who have received prizes or honorable mention at the London Exhibition in 1851, or the New York Exhibition of 1853, and all who have received first prizes at either of the Provincial Exhibitions of Upper and Lower Canada in 1853 and 1854, should be invited to send propositions to the Local Committees stating whether they will send specimens of their products and manufactures for exhibition to Montreal or Toronto, on or before 1st February next, payment to be made for such articles at the fair wholesale market value to be decided in case of dispute by the Judges at the Local Exhibition.

2. The Local Committee may further recommend for consideration a proposition from any party who has received a first prize at any Local Exhibition, which shall be referred to the Sub-Committee of the Executive Committee charged with that branch of industry.

3. In case of failure to obtain contributions from the above classes or under special circumstances, the Sub-Committee may take such steps as they may think best to ensure a proper representation of their particular branch. By these means it is hoped that public confidence will be inspired in the impartiality of the Committee. But it is proposed to go further. The whole public are invited to compete at the Local Exhibitions, at Montreal and Toronto, and any successful competitor will have his contribution purchased on the same terms as those furnished by the classes already described. The Executive Committee do not bind themselves to send to the Paris Exhibition any of the articles which they engage to purchase. They must be guided by circumstances, such as the extent of the contribution, the quantity of space allotted, &c., &c. The articles not sent will of course be resold on account of the commission. The propositions made by the parties entitled to furnish articles under the above regulations must be as specific as possible, and must be forwarded at once to the Secretary, so that the proper Sub-Committee may dispose of them. It will be advisable to prevent as much as possible similar articles being made by different manufacturers and mechanics. It is hoped that no delay will now take place, and that the Local Committees will be active in obtaining and promptly procuring the propositions of intended contributors. It is recommended that all the contributions be sent to Montreal or Toronto, where they will be delivered free of expense to the Central Committee at each place, and exhibited to the public at a small admission price. Jurors will be appointed to aid the Committee in determining on the articles to be sent to Paris, but no prizes will be awarded. Such is the scheme which the Executive Committee are of opinion will, if zealously supported by the local Committees and the public, ensure for Canada an honorable position at the great Paris Exhibition.

F. HINCKS, *Chairman.*

J. C. TACHE, *Secretary.*

Acting upon the recommendations in the Report, we learn that Local Committees have already been organized in several places. At Montreal, the Local Committee is in vigorous operation, meeting twice a-week, and using all possible dispatch in procuring specimens. At Toronto, we regret to say, a good deal of time has already been lost. However, a preliminary meeting was held at the office of the Board of Agriculture on the 1st instant, for the purpose of organizing a Local Committee. Although the meeting was thinly attended, nearly all the resident members of the Commission were present. E. W. Thomson, Esq., was appointed Chairman, and G. W. Allan, Esq., Secretary and Treasurer. It was decided to call another meeting of the Local Committee on Saturday, 9th instant, to be held in the County Council Chamber, Shire Hall. With the view of ensuring a full attendance, the Secretary was requested to advertise the meeting fully, and also send Circulars to all the parties above named who are ex-officio members of the Local Committee. It is to be hoped that when this meeting takes place, some well-arranged method of action will be decided upon. It is necessary to proceed to work, with all possible activity, or the time will pass away before anything worthy of this part of the Province has been done.

AGRICULTURAL SOCIETIES.

The Agricultural Societies of Upper Canada are not only increasing every year in number, but also, generally speaking, in systematic activity and usefulness. Much of our agricultural improvement and prosperity is no doubt to be traced, more or less directly, to these invaluable organizations, which are richly deserving the best sympathies and support of a discerning and patriotic public. Nevertheless, there is much that is yet defective in the working of these institutions, and we are far short of practically realizing what is evidently the leading and characteristic principle of the present Agricultural Statute, viz., the systematic and harmonious action of the different classes of Societies, organized in accordance with its provisions for the

diffusion of agricultural knowledge, and the improvement of agricultural practice.

We have much pleasure in calling the attention of our readers to some excellent remarks made by George Alexander, Esq., at a recent meeting of the West Zorra Agricultural Society, Mr. Alexander is the President of the County of Oxford Society, and seems to regard it as a part of his official duty to attend the various Township Exhibitions in his own county; thus setting, as we think, an example which all county presidents might beneficially follow. The toast of the County Society having been cordially received, Mr. Alexander observed:—

“He felt deeply sensible of the honor which had just been conferred upon him, and would observe that if it was his duty to be present at the exhibitions of the different Branch Societies, it was a very pleasant duty to discharge. He proceeded to observe, that they had now outlived the discouraging times, when the farmers got little for any kind of farm produce. He would not look back to them, as we had now before us a bright and promising future. The forests were rapidly being transformed into beautiful farms; property everywhere had increased immensely in value; and while all other improvements were steadily progressing, it was gratifying to observe the farmers keeping pace with the times. Their highly esteemed President, Mr. Oliver, who acted as one of the judges of sheep, at the late Provincial Show, would tell them of the magnificent stock of every description exhibited there. It must be admitted, he said, that those annual exhibitions have had the desired effect of calling forth a noble emulation to import into the Province and raise the finest bred stock; while our county and township societies are diffusing widely this spirit of improvement. He would observe, that from the very successful working of the township societies generally, it had been found somewhat difficult to extend the sphere of the county society to what it should be. However, every one must rejoice to see the township societies doing so much good; and it would be unwise to attempt to divert from their natural channel the energy and enterprise which have been awakened in such localities, unless it became generally the spontaneous wish to unite in forming one grand society. As the country progresses, and many of the settlers get superior improved stock, they will naturally desire to exhibit them in a larger sphere; and there is no fear of the county society being sustained, if it is managed with proper energy and judgment. It possesses a beautiful show ground, granted by the government, which has been handsomely fenced in, and is now being levelled by some of the enterprising members. Sixty permanent sheep pens are now just being finished, the expense of which will be defrayed, principally, by liberal contributions from the inhabitants of Woodstock.

Under the Statute, it receives annually ninety pounds of the government grant; while the present year, the number of its members has been more than doubled, and many others have expressed their intention to compete at the next annual exhibition, so that the prospects of the society are rather looking up; but he wished to say a few words on another subject. He would like to see the farmers of West Zorra and other townships meeting in this social manner more frequently, to talk over many of those matters, in which they have a common interest. By taking part in such meetings, we all become more liberal and enlightened in our views and feelings, and acquire an interest in many things, which it is beneficial for us to know. While all seem to be acquiring property, it is indispensable that we progress in intelligence as a people. The mere possession of wealth does not give respectability or dignity to man. We find that Scotland has been distinguished for the excellent working of her Parish Schools, and for the love of knowledge generally prevailing amongst the youth of that land, which has fitted them for the discharge of all their duties in life, and which has enabled them to rise to the highest positions in the state. He regretted much to be informed, that this noble township had not yet established its public Library. East Zorra had done so, and with all the inducements now held forth by the Education office, it was desirable that every township in the land should follow their example. Before concluding, he claimed permission to propose a toast. He said, he had been much delighted with what he had seen this day. It was gratifying to observe the great improvement upon last year in the different stock exhibited. Their township was in a highly prosperous state.”

Mr. Alexander, in proposing the health of the Successful Competitors, remarked:—

“That if there was any body of men to whom the country was more deeply indebted, it was to those gentlemen who were devoting themselves to the improvement of stock, and he hoped to see many of those, who had taken prizes here this day, exhibiting at the next annual show of the County Society. It appears to have been the idea contemplated by the Statute, that the successful competitors at the different township shows, should then compete at the County Exhibition. He hoped to see a laudable emulation amongst the different townships as to which would carry off the greatest number of prizes. If the County Society could be extended to occupy this its proper position, it would be rendering some service to the country.”

ANNUAL MEETINGS OF SOCIETIES.

It may not be amiss to remind such of our readers as are placed on the management of these institutions, that the Statute requires all Township Societies to hold their annual meetings, for the adoption of Reports, electing Officers, &c., sometime during the month of

January in each year; and that a perfect and certified copy of such Reports be sent to the Secretary of the County Society, previous to the annual meeting thereof, which the law directs to be held in February. The Secretaries of County Societies are required to transmit their own Reports, with those of their respective Townships, to the Board of Agriculture in Toronto, on, or before, the 1st day of April. Some of these documents have on previous occasions been sent to the Bureau of Agriculture at Quebec, thereby occasioning both inconvenience and delay.

We understand that a plan for publishing all that is interesting and valuable in the Reports of Societies, together with those of the Provincial Association, Prize Essays, &c., will be submitted to the next meeting of the Board of Agriculture, and that there is every probability of its being carried into execution. Societies will therefore consult their own usefulness and character by making their Reports as full, systematic, and interesting, as possible.

UNIVERSITY OF TORONTO.

The annual commencement of this Institution took place on Friday, November 24th, in the capacious Hall of the Legislative Council, which was filled to overflowing. Mr. Chancellor Blake presided. A large number of students matriculated, and academic degrees were conferred. The occasion was highly interesting, and the addresses of the Chancellor and the various Professors were excellent. The learned and esteemed President, Rev. Dr. McCaul, was, as usual, eloquent, happy, and impressive. A number of premiums, consisting of medals and books, were given; among them may be mentioned two in the Agricultural department. The first, offered by Wm. Matthie, Esq., of Brockville, the late President of the Agricultural Association of Upper Canada, was won by Mr. J. E. Sanderson; the other, given by a member of the Board of Agriculture, was awarded to Mr. W. W. Baldwin, son of the Hon. Robert Baldwin. Professor Buckland, in presenting these prizes, paid a well-merited compliment to Mr. Matthie, and spoke highly

of the industry and attainments of the successful candidates, who had not won their honors without a close competition.

By the way, we may observe, that the Senate have established five Scholarships in Agriculture, of the annual value of £30 each. Three of these Scholarships were available the present year, but we regret to say that only one has been taken. We trust that our farmers will ponder this circumstance, and, in these prosperous times, will be disposed to give their sons the opportunity of enjoying the great advantages which the University offers them, in common with all other classes of the community.

RESIGNATION OF PROFESSOR LOW.

Professor Low, after having occupied the Chair of Agriculture in the University of Edinburgh, for nearly a quarter of a century, has, we regret to learn, found it necessary, on account of bodily infirmities, to resign that important situation.

Mr. Low has been distinguished for a number of years as an accomplished and trustworthy writer on practical Agriculture. His "Elements," which comprise the substance of his college lectures, have gone through several editions, and his treatises on the Management of Landed Property, and the Domesticated Animals of the Farm, rank among the highest standard publications of British agricultural literature. The larger edition of Farm Animals, published several years since, at a very high price, is a work of great artistic merit, containing highly finished colored engravings, on a large scale, of the justly celebrated portraits of farm animals belonging to the Museum of the Highland Society. A copy of this valuable work has recently been added to the library of University College, Toronto. Notwithstanding the high attainments of Professor Low, his class in the University, we believe, was never large;—a characteristic, unfortunately, of most Agricultural Professorships that have been hitherto established. Time, however, will, no doubt, work a gradual remedy, and place agriculturists, and their noble profession, in their rightful position in all our academic Institutions.

Since writing the above, we have learnt from the *Fifeshire Journal*, that Mr. Russell, of Kilwhiss, is a candidate for the vacant chair. This gentleman is already personally known to several of our readers, he having very recently visited Canada. He attended our recent Provincial Exhibition at London, and took an active part as a judge on Implements, and in the public meeting for agricultural discussion. Mr. Russell is at present, we believe, travelling in some part of the United States. The journal above mentioned speaks of his qualifications for the Chair in the highest terms, and a very flattering memorial was got up by the Trafalgar Agricultural Society, of which Mr. Russell has long been the indefatigable Secretary. From our acquaintance with Mr. Russell, during his recent sojourn in Canada, we, in common with many others, formed a very high opinion of his talents and character,—and his Canadian friends will be happy to hear of the success of his application, believing him to be eminently qualified, in every respect, to become a worthy successor to Professor Low, in one of those ancient and national seats of learning in the mother country, of which every true-hearted Briton, in whatever part of the empire his lot may be cast, feels justly proud.

Since the foregoing was in type, we have received the *Gardiners Chronicle* of November 11th, in which it is stated that PROFESSOR WILSON, has been appointed to the Agricultural Chair in the University of Edinburgh; We are not informed what other candidates offered, but from Professor Wilson's high-standing and tried experience in all matters pertaining to the science and practice of Agriculture, his appointment cannot fail of being advantageous and satisfactory both to the University and the Agricultural community.

Professor Wilson acquired his first knowledge of farm practice in one of the best cultivated districts of Scotland, and was for several years the Principal of the Agricultural College at Cirencester in England. He had the principal charge of the Agricultural department of the Great Exhibition in London, in 1851. And in

that capacity rendered great service to Canada. Subsequently he became one of the Commissioners appointed by the Queen to the New York Exhibition, and it will be in the recollection of many of our readers that he visited our Provincial Show at Montreal and Hamilton, in 1853.—The Professor is now directing the Agricultural department of the Crystal Palace at Sydenham, and has been selected by the Government to take charge of British Agricultural interests at the Great Paris Exhibition, next year. In each of these capacities he has signified to our Board of Agriculture, his willingness to attend to the interests of Canada.

We abate nothing from what we have previously written in reference to Mr. Russell, in congratulating Professor Wilson, on his new and important appointment, and heartily join with his numerous friends on this side of the Atlantic, in wishing him abundant happiness and success.

THE LATE PROVINCIAL FAIR.

We much regret that notwithstanding every possible pains was taken to have the Prize List, in our last issue correct, an omission, through some unwarantable accident, occurred in the List of discretionary awards in the Fine Arts class. The omission should have been supplied as follows:—

Miss Anne Treadwell, L'Original, County of Prescott: Charts in Illustration of Natural History as presented by the study of Geological eras, and Geographical divisions of the earth; Diploma.

IMPROVED DURHAM STOCK.

We learn that Mr. S. P. Chapman, of Clarkville, Madison Co., N. Y., has several Bull Calves for sale, some of them from first-premium Cows, and all from the celebrated Bull, *Halton*, whose characteristic excellencies are well known in Canada, as he was formerly owned by one of our most enterprising and successful breeders of Short-horns,—the Hon. Adam Fergusson. Mr. Chapman has also for disposal some first-class Heifers and heifer Calves. The prices vary from \$200 to \$600 each. The high character which Mr. Chapman's Herd has already attained, must be well known to the generality of our readers.

FARM ARCHITECTURE.

MESSES EDITORS,—I have read the *Agriculturist* with much pleasure and profit for three or four years, and I regret that I did not preserve my numbers more carefully. On looking for the design of a *Farm House* which you gave a year or two since, and which pleased me much at the time, I found some numbers missing which probably contained the object of my search. As I am about to build a good house—the old one has done very well so far—I should take it as a great favor, and I have no doubt many of your readers will do the same, if you would give the design of a substantial “Farm House”—stone or brick—in your next number.

I know pretty well what I want, but the size, proportion of parts and general appearance of a house that *has been* built and proved convenient &c., would help me to decide on the plan.

Yours, &c., A. S. M.
York Township, Nov. 3, 1854.

We have much pleasure in complying with the request of our correspondent. The design which he will find below is one of the best we have met with, and has not yet appeared in this journal. It is taken from a recent American work on Farm Architecture, and is adapted to make a pleasant “home” for any substantial and well-to-do Canadian farmer, who desires to build one.



A FARM HOUSE.

The above design is that of a comfortable, plain yet highly-respectable stone or brick farm house of the second class, suitable for a farm of two or four hundred acres, and for a family of twelve or fifteen. The style is mixed rural Italian and bracketed, yet in keeping with the character of the farm, and the farmer's standing and occupation.

The main body of this house is 42 × 24 feet on the ground, and one and three quarter stories high—the chambers running two or three feet into the roof, as choice or convenience may direct. The roof has a pitch of 30 to 48° from a horizontal line, and broadly spread over the walls, say two

and a half feet, showing the ends of the rafters, bracket fashion. The chimneys pass out through the peak of the roof, where the hips of what would otherwise be the gables, connect with the long sides of the roof covering the front and rear. On the long front is partly seen, in the perspective, a portico, 16 × 10 feet—not the chief entrance front, but rather a side front, practically, which leads into a lawn or garden, as may be most desirable, and from which the best view from the house is commanded. Over this porch is a small gable running into the roof, to break in which is a door-window leading from the upper hall on to the deck of the porch. This gable

has the same finish as the main roof, by brackets. The chamber windows are two-thirds or three-quarters the size of the lower ones; thus showing the upper story not full height below the plates, but running two to four feet into the gable. The rear wing, containing the entrance or business front, is 24 x 32 feet, one and a half stories high, with a pitch of roof not less than 35°, and spread over the walls both at the eaves and gable, in the same proportion as the roof to the main body. In front of this is a porch or veranda eight feet wide, with a low, hipped roof. In the front and rear roofs of this wing is a dormer window, to light the chambers. The gable to this wing is bold, and gives it character by the breadth of its roof over the walls, and the strong brackets by which it is supported. The chimney is thrown up strong and boldly at the point of the roof, indicating the every day uses of the fire-places below which, although distinct and wide apart in their location on the ground floors, are drawn together in the chambers, thus showing only one escape through the roof.

The Wood-house in the rear of the wing has a roof of the same character, and connects with the long building in the rear, which has the same description of roof, but hipped at one end. That end over the workshop, and next the wood-house, shows a bold gable like the wing of the house, and affords room and light to the lumber room over the shop, and also gives variety and relief to the otherwise too great sameness of roof-appearance on the further side of the establishment.

We shall not attempt to describe interior arrangements, as these may be varied to suit the taste of the individual. The cost of a well finished house of this size, stone or brick, will not be much short of £750. Much however must depend upon locality, cost of materials &c.,

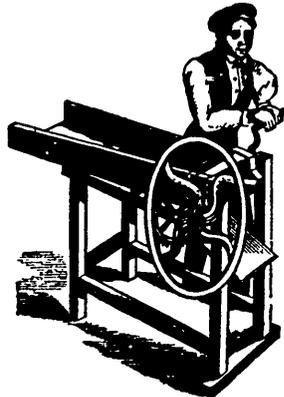
BROWN'S SEED-SOWER.



A new seed-sower has just been brought out by Mr. Brown, the inventor of the straw-cutter referred to below. It is a very ingenious contrivance, and is said to answer completely the purpose for which it is designed. It consists of a long narrow box, open at the top, with a perforated tin bottom. A thin piece of wood, notched at the edges covers the bottom on the

inside, and is operated back and forth by a handle, as seen in the cut. The grass, or clover seed, for which it is mainly designed, is deposited in the box, above the moveable slide which covers the holes in the tin bottom. It is then carried before the sower by a strap passing over his shoulders, and as he moves forward he operates the slide with his right hand, which causes the seed to fall through the bottom evenly to the ground. The apparatus is light, and being eight or ten feet in length enables a man to sow small seeds very fast, and much more evenly than can be done by hand. By a slight modification it is adapted to Turnip seed not intended to be sown in drills. For new land which is generally unsuited to the drill system, this machine will, we think, prove useful. The price will be from \$4 to \$5.

A NEW STRAW CUTTER.



Mr. John Brown, a practical mechanic of this city, thinks he has made some important improvements in the Straw-Cutter. There is probably no farm machine that has undergone so many modifications, and assumed so many different shapes as this. But of the multitudinous "improvements," few seem to have given perfect satisfaction. There is still room for more. The above cut does not give a representation of the particular improvement Mr. Brown claims to have made, and for which he has obtained a patent. It consists principally in the mode of applying and adjusting the knives. One, two, three, or even four knives can be attached to the revolving frame. Two will pro-

bably be found sufficient as the motion is rapid. The knives are adjusted by two screws at each end in a very safe manner. They are arranged spirally, the diameter of the circle they describe being about 8 inches. The gearing is very simple and being all attached to the cast-iron frame which forms the mouth of the feeding-box is not likely to get out of order. The chief merit of the improved machine is its *durability*. The price is \$20.

MR. SHERIFF TREADWELL'S PREMIUMS.

Mr. Sheriff Treadwell, of L'Orignal, late President of the Prescott County Agricultural Society, and at present President of the Provincial Agricultural Association, having very generously offered One Hundred Dollars, to be distributed in the County of Prescott, in the Townships of East and West Hawkesbury, Longueuil and Caledonia, viz.,—£5 to the best cultivated farm, and £1 5s. to the best garden. The conditions were published in the *Agriculturist* for August last. These premiums have been awarded, and the following is a report by Mr. Alfred Cass, one of the successful candidates, as to the way in which he manages his farm. Amongst the gardens, that of Mr. William Walker was very worthy of notice. In writing to the President, Mr. Cass says:—

L'ORIGNAL, 11th Sept., 1854.

SIR,—Having been often and strongly solicited to give you some account of my experience as an agriculturist, permit me to make the following remarks:—

My farm, which consists of 300 acres, is partly cleared and partly under wood. I have about 200 acres of clearance, two-thirds of which are annually cultivated, while the remaining one-third is set apart for grazing. I use the iron Scotch plough and the Scotch harrow, which I consider preferable to all others. As early as possible in the fall, I commence ploughing, so as to allow all foul seeds to germinate before the frost sets in, and also to afford sufficient time for the decomposition of stubble, and other vegetable substances contained in the soil. A second ploughing in the spring thoroughly cleanses the land, and prepares it for sowing. On clay soil I sow wheat; on loam, sand or gravel, oats and corn, with potatoes, or any other of the root crops that may seem suited to the soil. Various kinds of wheat have been introduced into this country, and tried thoroughly, but, so far as my experience goes, the Black Sea is the only kind upon which dependence can be placed. It is suited to a great variety of soil, and is not liable to rust, a quality from which no other kind is ex-

empt; consequently, late sowing may be followed with success.

The root crops I consider as indispensably connected with the farm stock generally. In the management of milch cows, especially when confining them to dry fodder, greatly augments the quantity and quality of the milk, and materially tends to facilitate digestion. The objection to the root crop is the difficulty and expense attending its culture; but this objection may be greatly obviated by a proper use of implements, and a due selection of a suitable soil. My method is as follows:—I choose land of a light loam, manure light, plough not less than three times, and drag twice. I make no drills with the plough, but leave the surface perfectly level. I then employ Emery's seed-sower and drill-harrow, by which the work of ten men may be done by one. I sow 2½ lbs. of turnip seed to the acre, a quantity far too much but for the ravages insects make upon the plants in the early stages of growth. The first hoeing I allow them all to remain. In the second hoeing, I thin them if necessary, leaving the most healthy and thrifty generally about eight inches apart, and even a greater distance if the soil is very rich. In feeding out I clean them well, and then use Emery's vegetable-cutter, with which one man can cut in fifteen minutes as many as will suffice for fifteen or twenty cows. Thus the crop is raised and disposed of with the greatest economy in time and labor. My treatment of beets and carrots is exactly similar. I generally sow from thirty to thirty-five bushels of wheat, yielding on an average from ten to fifteen bushels of seed. I sow about the same quantity of oats, with about the same average yield. I cut from forty to sixty tons of hay, and, notwithstanding its high price, I find it more advantageous to consume it on the farm; for it must be borne in mind that a farm drained of its produce, without a due return being made by the application of manure, will ultimately become exhausted and worthless. Throughout the winter I keep my cattle stalled, and, having water and everything necessary for their accommodation within the stable, the least possible amount of labor is required for their care. From my stock of cows I have made this season 2,000 lbs. of cheese, worth 6d. per lb., and about 400 lbs. of butter, worth 10d. per lb., besides keeping 12 hogs in good condition from the refuse of the Dairy; so that I consider myself amply remunerated for feeding hay to my cattle at \$16 per ton. I have not kept Debt and Credit, as deemed necessary by you, but I think it a matter of high importance, as it would serve as a compass to show us where we are.

I employ implements of various descriptions to save manual labor, such as corn-sheller, hay-cutter, seed-drill, hay-rake, and numerous other articles, with which the labor of the farm is greatly facilitated, and its produce raised at the least possible cost. My wood land consists chiefly of maple, from which I manufacture yearly about 1½ tons of sugar, which I consider to be a small item of profit. I also cultivate forest trees of various descriptions, with very good success.

The following is the statement, somewhat condensed from the original, of Mr. JAMES P. WELLS, whose farm was considered one of the best:—

VAN KLEEK HILL, 13th Nov., 1854.

DEAR SIR,—I feel that your very laudable endeavors, to promote our agricultural interests, clearly entitle you to be placed in possession of the most correct data that can be furnished of the farming operations throughout the country.

The quantity of land comprising my farm is 95 acres. I have, however, under lease an adjoining farm, which has been appropriated exclusively to pasturage. These 95 acres are divided into 9 separate fields, beside an orchard plot of 2½ acres, the whole being well fenced, partly with stone walls and partly with cedar rails, and I have several hundred rods of under-draining and open-ditching. The quantity of land cultivated, or rather under crop, this year, is about 90 acres, appropriated as follows, viz.—23 acres of spring wheat, partly of a variety from the neighborhood of London, England, and partly of Black Sea—averaging much alike, say, 26, 28 and 30 bushels per acre in these separate fields, producing about 646 bushels, or an average on the whole of 28 bushels per acre, which is considerably below that of some former years, the largest having been in the year 1852, which was a fraction over 35 bushels per acre, and the general average has seldom been less than 25 bushels for a long term of years. In oats, this year's average is far below that of former years, say not over 40 bushels per acre, in place of about 60 formerly. The quantity of land sown to this crop was about 30 acres; the produce therefore will be about 1,200 bushels. In root crops, I have not attempted to do much this year, there having been only about four acres in all, say potatoes, turnips, carrots, and mangel-wurzel: the yield of the different crops upon this limited scale has been satisfactory, although my potato crop, being about 100 bushels per acre, is very much below the average of former years, owing to late planting and drought: the yield, however, of carrots and mangel-wurzel is more satisfactory, and although my operations in these articles are almost too limited to bring under your notice, still the result may serve as a sort of earnest to induce larger undertakings. About one-fourth of an acre was sown to carrots; the produce being 340 bushels, would give an average of about 60 bushels to the acre; they were of the long orange variety. The plot allotted to mangel-wurzel contained only about 10 rods of ground, and the produce was 60 bushels, giving an average of 960 bushels: this crop appeared to suffer more from the drought than did the carrots, and in an ordinary season for rain, there would in all probability have been a much larger yield, say 50 per cent. increase.

My hay crop has been good. I had 30 acres of grass, and the produce was fully 70 tons of excellent hay (or upwards), being an average of 2½ tons per acre, a portion however producing a much larger yield, say upwards of 3 tons per acre: this was a seven-acre field, which pro-

duced by estimate some 23 or 24 tons of hay, being the first crop after seeding it down. The remainder of the 90 acres cultivated this year was planted with Indian corn and peas, the latter a fine large variety, from the western part of the Province, these crops producing a fair return.

My stock of horned cattle and horses is as follows, viz:—

15 milch cows, 13 steers (3 to 6 years old), 12 head of young cattle, 40 in all, being of the common breed of the country.

4 team horses, 2 carriage ditto.

1 brood mare, 3 colts, of one, two, and three years old.

My farming work, you are doubtless aware, is principally carried on by paid labor. The amount of capital invested in cattle and implements of work generally averages about £500; and at this season of the year, before disposing of the season's products, my farming business involves a capital of about £1,000 or £1,100 currency, exclusive of the value of the land in cultivation.

It would perhaps be a subject of some curiosity to you to know how my "paid labor" farming appears in its results on the Profit and Loss sheet, sustaining as it must needs do the charges of labor, expense of implements of work; and my farming account is debited regularly with the rent of my farm: and on this subject I will merely say that it would also be a subject of curiosity, but of some anxiety to myself, did not my ledger annually exhibit the true state of the matter, and it serves to relieve me on this point.

The recapitulation of the several products of the 90 acres appropriated to their cultivation, would be as follows, and I attach what I believe may be taken as their current valuation, viz:—

23 acres of wheat, producing 646 bushels, at 8s. per bushel, amounts to.....	£258	8	0
30 do do oats, do. 1,200 bush., at 2s.....	150	0	0
7 do do producing about 300 bushels of root crops, and about 50 bus. Indian corn and peas, worth.....	87	0	0
30 do in grass, producing 70 tons (or over) of hay, now selling at \$12 per ton.....	210	0	0

90 acres. To which may be added the use of cows, ground, of young cattle, improvement of soil, &c., &c., would give at least.....

	62	10	0
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Making an aggregate, as the total production for the cultivation, of.....

	£748	8	0
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It would give me pleasure to go into some other particulars, such as the fattening of cattle, manuring, &c., but my time will not permit. On the subject of manuring, however, I will add that for a long term of years, I have manured my farm freely with leached ashes, combined with barn-yard manure, and I am fully convinced that the former is of great value to grain crops, but I have not experimented with much satisfaction on its application as a top dressing for grass land, or in its use in manuring root crops. From the foregoing hastily drawn up and rather ill-arranged

memoranda, you may perhaps gather something that may assist you to form an opinion of what could be accomplished under more favorable circumstances. Wishing you a great measure of success and personal satisfaction on the result of your efforts to bring our County into notice as to its agricultural value,

I remain, Dear Sir,

Your very obedient servant,
(Signed) JAMES P. WELLS.

Charles P. Treadwell, Esq., &c., &c., &c.,
L'Original, C. W.

POTATO DIGGER.—The letter of Mr. W. W. Waite, and an article in reply, is unavoidably postponed. It will appear in our next issue.

DEATH OF MRS. THOMAS.

We deeply regret to announce the death, since our last issue, of this esteemed lady. She died shortly after giving birth to a son, and has left a void in the ranks of Canadian female writers that will not soon be filled. She had undertaken to supply a series of articles for this paper on Education, Health, Familiar Chemistry, and kindred subjects, for which she was well qualified, but she has been summoned away in the midst of her work. Our readers as well as ourselves have sustained a loss. For she was a pleasant, judicious, and skilful instructor. Mrs. Thomas was a native of the adjoining State but had resided for some years at Brooklin, in the Township of Whitby,

WINTER EVENING STUDIES.

Winter is again upon us. Admonished of its near approach, by threatening clouds, and winds, and storms of rain and snow, it is appropriate, and will not be unprofitable, we hope, to present some of the advantages which may be enjoyed during that season; not indeed by all, for some occupations will permit of being carried forward within doors, by night as well as by day. But to those engaged in other pursuits, winter, comparatively, is a period of repose. During the day-time, it is true, industry will keep busy the willing hand; but the days are growing shorter and the nights are lengthening; and the evenings of winter almost every man may have at his own control.—At the close of the day, when the burdens that have been manfully borne are cast down until the next return of morning, the laboring man, beneath his own roof, should feel himself independent of the necessities that may have been imperiously demanding his attention and strength, and should devote his evenings to rational amusement and study, at home. Were we to enter upon a calculation of the number of hours which each might thus save from running to waste, which he might devote to the cultivation of his own mind, and to the improvement of his family, it would be found that the general sum amounts to no inconsiderable portion of a life time. Let our readers

should they be curious in this matter, figure it up for themselves, assuming as the basis that the average duration of life, after twenty-one, is thirty years, and that for four months in the year there are daily two hours of evening; they will then ascertain that the period which might be devoted to the purpose we have suggested, will comprise one-thirtieth part of the active and most valuable portion of our lives. During the long winter evenings, if a man should resolutely apply himself to the reading of useful books, which are almost too common to be prized so highly as they ought, how much valuable information might be gathered and treasured up; and if he should read aloud, a most commendable practice, in our opinion, at the fireside, the benefits would be conferred, in most part upon all the members of the household. Wherever this method of spending the evenings has been adopted, there has been created, if it did not exist before, a taste which can appreciate the delicate pleasure that flows from contact with the brightest thoughts and noblest sentiments of the great master minds that illuminated the world. And it also will be found that, amongst those who pursue this course, there is a growing disrelish for the baser gratifications, so nearly akin to vices, to be found in bar-rooms and saloons, at the card table, and in loud, boisterous and unmeaning mirth; and that, in the family circle, the congeniality of feeling, the correspondence of manners, and the affectionateness arising from exalted sympathy are much strengthened: so that home becomes to a man the most attractive place on earth. Whoever will adopt this plan of winter evening studies, and persevere in it, although it may at first be irksome, and for a while dull, will ere long discover coming to his aid one of the most valuable mental habits which it is possible to form; as the accustomed hour draws near, his mind will turn eagerly towards his books in search of that companionship which is to be found in the printed page alone—a companionship with the most powerful intellects in the moments of their inspiration. The privilege which is thus conferred upon the studious is invaluable. Who would not esteem himself happy could he but sit down for an hour with Plato, or Bacon, or Franklin, and with Shakspeare, or Milton, or Wordsworth? And yet, gratifying as that might be, what would the instructiveness and interest of a mere casual conversation amount to, in comparison with the deliberate unfolding of the very heart, the laying open of the rich treasures of wisdom, which is made in the writings of these distinguished men? After pursuing awhile this plan of reading evenings, the mind will gradually become accustomed to carry with it into the workshop and into the field the acquaintances which have been made in books, and, whilst wielding the hammer, or drawing the thread, or following the plow, will busy itself with reflections upon matters of solid and enduring interest, and will not, as we fear is too often the case with laboring men, remain unoccupied, a temple without a shrine, or, what is worse still, indulge in loose and corrupting visions, which can but deprave and destroy it.